REMARKS

Favorable reconsideration is respectfully requested.

Upon entry of the above amendment, the claims will be 23-32.

The above amendment is responsive to points set forth in the Official Action, as will be discussed in further detail below.

Claims 13-22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (U.S. 5,972,052, hereinafter Kobayashi) and Maeda et al. (U.S. 5,959,831, hereinafter Maeda), and further in view of Saito et al. (U.S. 5,838,531, hereinafter Saito), all previously applied.

This rejection is respectfully traversed.

The rejection has pointed out Maeda discloses an electrolytically-formed conductive polymer layer passing through a through-hole in the thickness direction. However, such interpretation is incorrect due to the following:

A. Regarding Figs.12-14 and the description at col.1, line 30-col.2, line 6, these relate to the manufacturing technique of a typical tantalum solid electrolytic capacitor. An inorganic material of manganese dioxide is formed by baking. There is no description in these parts relating to electrolyzing formation of the conductive polymer layer.

B. Regarding Fig.2, it discloses only a method for formation of the manganese dioxide which is the inorganic material, but does not disclose the electrolytically-formed conductive polymer layer.

C. Regarding the description at col.4, line 5-col.4, line 39, these descriptions disclose the dielectric coating of tantalum pentoxide formed by anodic oxidation method. Although formation of the coating with an electric field applied is common to the present invention, the kind of coating material and purpose of formation of the coating are different from that of the present invention.

D. Regarding the description at col.2, line 3-col.2, line 5, the through-holes indicated by the rejection are deemed to be numerous pores in a porous dielectric layer A3a. These pores may not be open pores, but rather closed pores. Such pores may not necessarily be penetrated.

An analysis of the differences between the present invention and Maeda reveals that it is very important to appreciate how the electrolytically-formed conductive polymer layer grows, and in which direction it grows through the through-holes.

In the present claims, e.g. claim 23, it is unobvious how the electrolytically-formed conductive polymer layer grows in the process for producing the electrolytic capacitor, in relationship with the through-holes formed in the valve metal foil.

The object of the present invention is to provide a method for producing an electrolytic capacitor having the electrolytically-formed conductive polymer layer formed on the dielectric layer uniformly and in a short time.

To clarify the present invention, a new set of claims is presented, wherein a plurality of through-holes are formed through the valve metal foil, a cathode-side conductive polymer layer is attached on one side surface of the valve metal foil, and then the electrolytically-formed conductive polymer layer grows through the through-holes during polymerization, starting from the cathode-side conductive polymer layer.

According to the above steps, the electrolytically-formed conductive polymer layer is formed through the through-holes which open onto the side of the cathode-side conductive polymer layer. The electrolytically-formed conductive polymer layer can grow from the cathode-side conductive polymer side toward an opposite electrolyzing electrode, starting from the cathode-side conductive polymer layer.

As a result of improvement in the uniformity of the electric field applied to the valve metal foil, the electrolytically-formed conductive polymer of electrolysis formation can grow uniformly.

The electrolytically-formed conductive polymer layer, therefore, can grow from the inside of the valve metal foil to the outside, that is to say, from the cathode-side conductive polymer layer side to the opposite another electrolyzing electrode side. In other words, the growth direction of the electrolytically-formed conductive polymer layer is contrary to that of Maeda.

It is apparent that the remaining references do nothing to overcome the above-discussed deficiencies of Maeda.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

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